

# Aviation Education News

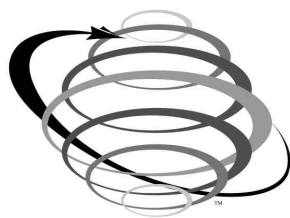


Distributed Quarterly to Promote Aviation Education and Awareness in Virginia

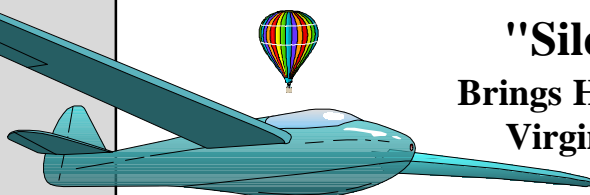
May 2002

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**AVIATION WORLD'S FAIR 2003**  
 NEWPORT NEWS • WILLIAMSBURG INTERNATIONAL AIRPORT  
 NEWPORT NEWS, VIRGINIA • APRIL 7-27, 2003  
[www.aviation-worlds-fair.com](http://www.aviation-worlds-fair.com)

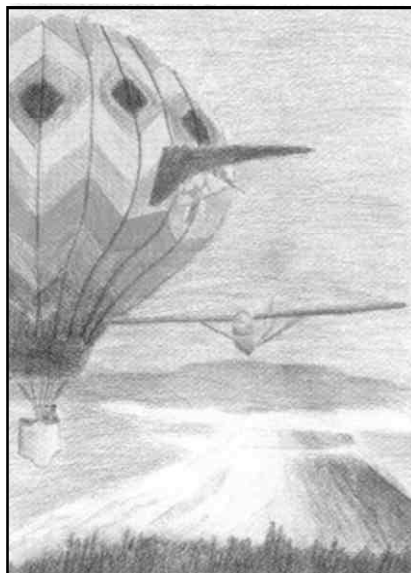


## "Silent Flight" Brings Huge Applause to Virginia Youngster

Ruthann Jones spent a lot of time thinking about and researching the design of the artwork depicting "Silent Flight" that she created for the 2002 International Aviation Art Contest. Her hard work paid off when she was awarded First Place in Category I (ages 6-9) in both the Virginia and United States National competitions.

Only recently having turned 10 years old, she is home-schooled and lives in Dale City, Virginia. Her artwork depicting a hot air balloon, hang glider, and sailplane with a spectacular mountain in the background, first competed in the Virginia contest. This contest, run by the Virginia Department of Aviation and judged by artists from the American Association of Aviation Artists concluded in late January.

Ruthann's artwork, along with that of eight (8) other winners (see inside), was then sent on to the United States National Contest in Washington, D.C. which is run by the National Association of State Aviation Officials (NASAO). Judging took place in March and Ruthann was notified soon thereafter.



Recognition of her achievement came on April 4, 2002 when she was invited to attend the National Aeronautic Association's Spring Awards Reception at the National Air and Space Museum in Washington, D.C.

Her artwork will now advance to the International Contest where it will be judged by an International jury. The winners in each age group will receive Gold, Silver and Bronze Medals, together with diplomas. These will be presented (to either the winner or to a designated representative) at the Federation Aeronautique Internationale General Conference in Dubrovnik, Croatia, in October 2002.

## PRESIDENT'S NOTES

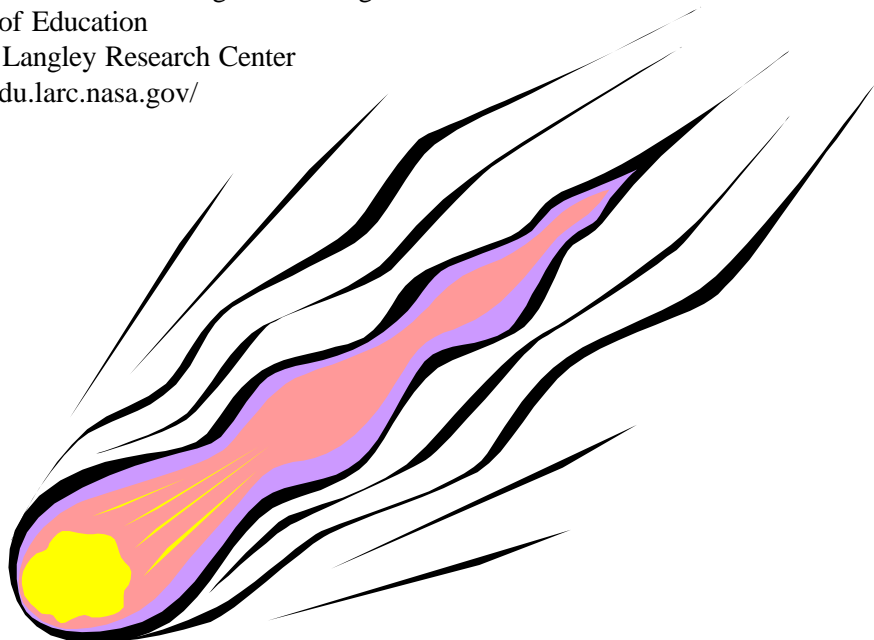
The NASA Langley Research Center's Office of Education (OEd) is working in collaboration with the Virginia Department of Aviation which is an excellent way to maintain two-way communication between federal and state aviation education concerns.

We are trying to help folks become more literate on the use and benefits of the Internet. There is a great deal of interest being generated with the advent of the Commemoration of 100 years of Powered Flight, during 2003. Along these lines I suggest that you access the following sites for some great ideas:

U. S. Centennial of Flight Commission  
First Flight Centennial Commission  
Festival of Flight  
Aviation World's Fair  
World Flight 2003  
Inventing Flight: The Centennial Celebration  
AirVenture 2003  
Smithsonian opening

[www.centennialofflight.gov](http://www.centennialofflight.gov)  
[www.firstflight.com](http://www.firstflight.com)  
[www.festivalofflight.com](http://www.festivalofflight.com)  
[www.aviation-worlds-fair.com](http://www.aviation-worlds-fair.com)  
[www.worldflight2003.com](http://www.worldflight2003.com)  
[www.inventingflight.com](http://www.inventingflight.com)  
[www.airventure.org](http://www.airventure.org)  
[www.nasm.si.edu](http://www.nasm.si.edu)

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<http://edu.larc.nasa.gov/>



**VASEF AVIATION EDUCATION NEWS**  
is published quarterly in support of aviation education in the Commonwealth of Virginia by the Virginia Department of Aviation.

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<http://www.doav.state.va.us> (Internet)



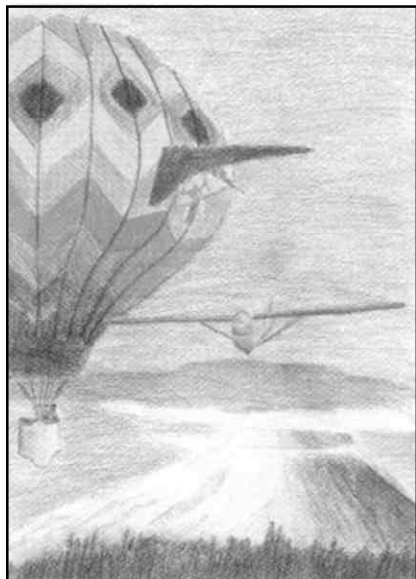
### VASEF PURPOSE

The Forum is a non-profit organization to promote and foster aviation and space education among public and private schools, colleges and universities, and community and civic groups, and to promote increased public understanding of aviation and space and their economic, social, and career values in our society and in the Commonwealth of Virginia.

## Virginia's 2002 International Aviation Art Contest Winners

### "Silent Flight"

Students from throughout the Commonwealth of Virginia submitted artwork depicting the theme of "Silent Flight." American Society of Aviation Artist (ASAA) members Luther Gore, Christopher Jones, and Bill Kluge once again served as judges for the contest. Three categories, determined by age, were judged - Category I included students ages 6-9, Category II ages 10-13, and Category III ages 14-17. Winners for 2002 in each category are shown below and on page 4.



**Category I  
First Place**  
**Ruthann Jones**  
Home Schooled  
Dale City, Virginia



**Category I  
Second Place**  
**McKenzie Hollins**  
Prince Edward Elementary  
Farmville, Virginia



**Category I  
Third Place**  
**Megan Chapman**  
Hardy Elementary  
Smithfield, Virginia



**Category II  
First Place**  
**Thao Do**  
Carl Sandburg Middle School  
Alexandria, Virginia



**Category II  
Second Place**  
**Stephanie Hintz**  
Joyce Kilmer Middle School  
Great Falls, Virginia



**Category II  
Third Place**  
**Abbie Cucolo**  
Carl Sandburg Middle School  
Alexandria, Virginia

A special thanks goes out to the Virginia EAA Council for arranging Young Eagles Flights for this year's winners.



**Category III  
First Place  
Divine Algire**  
Carl Sandburg Middle School  
Alexandria, Virginia



**Category III  
Second Place  
Marshanna Lambert**  
Council High School  
Council, Virginia



**Category III  
Third Place  
Chris Porter**  
Carl Sandburg Middle School  
Alexandria, Virginia

## National Air and Space Museum Calendar

Wednesday, May 1, 2002

### Javlee and Gilbert Mead Exploring Space Lecture Series

**Vera Rubin**

**"Why Does an Astronomer Study Something She Cannot See?"**

Vera Rubin, an astronomer at the Carnegie Institution of Washington, is generally credited with proving the existence of "dark matter" in galaxies, a discovery that has defined her career and kept her squarely in the arena of fast-paced, competitive science. The evening includes an Explore the Universe exhibition tour, free planetarium show, and book signing. 8 p.m., Lockheed Martin IMAX ® Theater. (gallery tour begins at 6:30 p.m.).

*Tickets are required for this lecture. Tickets may be obtained at the Museum's Lockheed Martin IMAX ® Theater Box Office or through Tickets.com by calling (800) 529-2440 or visiting [www.tickets.com](http://www.tickets.com). Tickets are free, but there is a nominal service charge on all Tickets.com orders.*

Thursday, May 23, 2002

### Charles A. Lindbergh Memorial Lecture **Reeve Lindbergh**

On May 23 the National Air and Space Museum will host the Charles A. Lindbergh Memorial Lecture, commemorating the 75th anniversary of his May 20-21 solo transatlantic flight and the 100th anniversary of his birth. Reeve Lindbergh - the youngest daughter of Charles and Anne Morrow Lindbergh - will share personal recollections of her father and discuss his illustrious career in aviation.

8 p.m., Lockheed Martin IMAX ® Theater.

*See above for ticket information.*

Thursday, June 6, 2002

### Javlee and Gilbert Mead Exploring Space Lecture Series

**J. Anthony Tyson**

**"Mapping the Dark Universe?"**

J. Anthony Tyson, a distinguished member of the technical staff at Lucent Technologies/Bell Labs with specialties in experimental gravitation and cosmology, describes contemporary efforts to map out the dark matter structure of the universe, using instruments like the proposed Dark Matter Telescope. The evening includes an Explore the Universe exhibition tour, free planetarium show, and book signing.

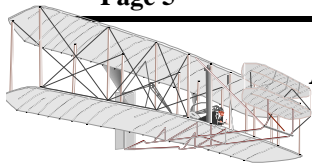
8 p.m., Lockheed Martin IMAX ® Theater. (gallery tour begins at 6:30 p.m.).

*See above for ticket information.*

### Lockheed Martin IMAX ® Theater **Now Showing: "Space Station 3D"**

As the first-ever IMAX 3D space film, *Space Station 3D* transports audiences to the International Space Station to experience life in space. Floating alongside the first men and women to inhabit the new station, audiences literally feel a part of the mission taking place 220 miles above Earth. *Space Station 3D* is the story of a unique partnership between 16 nations building a laboratory in outer space. Directed and filmed in space by the Astronauts. Narration by Tom Cruise. (2002; 47 minutes).





## Aviation World's Fair 2003 --- Only One Year Away

In April of next year, gates will open on a unique event in Virginia's history - the Aviation World's Fair 2003. A "U.S. Centennial of Flight Commission" event open to the public from April 12-27, 2003 it will celebrate the history and future of flight. Being constructed at the Newport News/Williamsburg International Airport, it will feature aviation exhibits and displays highlighting aviation history, technology, and more. Daily air shows will showcase modern military jets, airliners, and general aviation aircraft - including helicopters, warbirds (WWI/WWII aircraft), hot air balloons, small "ultralight" airplanes, and air racers. Special educational and awards programs, an art show, bands and orchestras, and seminars will provide something of interest for everyone.



**This is how the Aviation World's Fair site looked earlier this year as construction continued ....**

### Fair Facts:

**Educational Objective:** To teach the history and science of aviation and space and to inspire the next generation of pilots, engineers, etc.

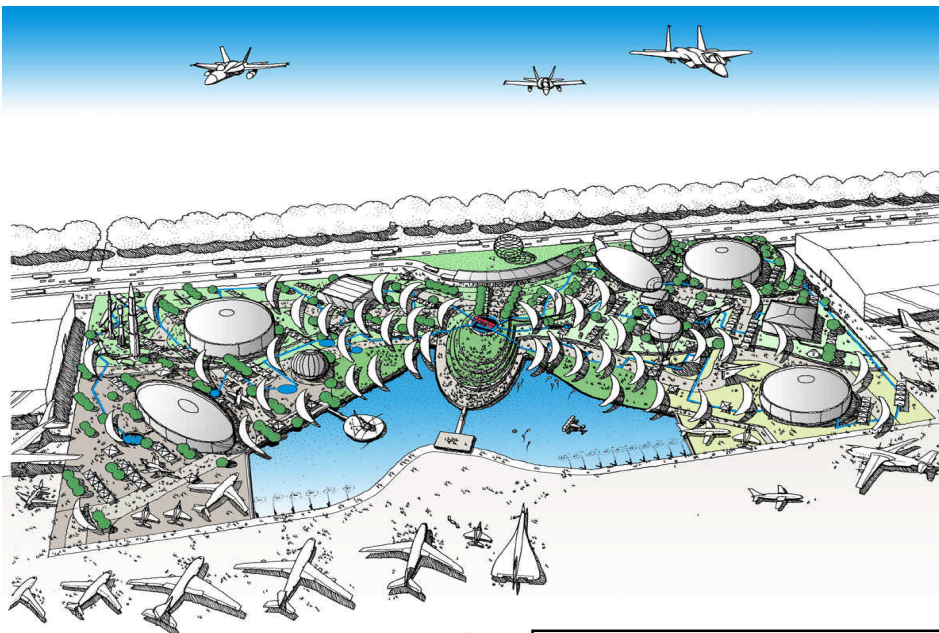
**Dates:** April 7-27, 2003 (trade show only for the first week). This is a one-time only event being held in aviation's centennial year.

**Location:** Newport News/Williamsburg International Airport

**Environment:** 180+ acre "theme park" environment with plenty of seating and shade.

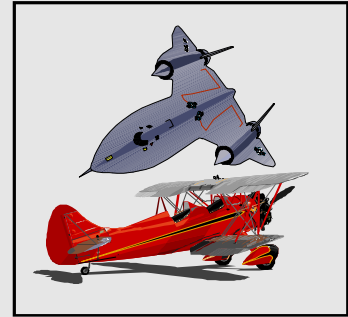
**For more Information:** Visit the Aviation World's Fair web site.

**[www.awf2003.com](http://www.awf2003.com)**



**... and this is how it will look in April of 2003!**

*Unique educational opportunities are being developed -- more information will be available soon!*



## VIRGINIA AVIATION MUSEUM CALENDAR

**May 16, 2002**

### Guest Speakers Series

Air Vice Marshal Ron Dick discusses his flying career with the RAF, including his experience ferrying a B-17 from California to the RAF Museum in Herndon, England. He is the author of "American Eagles," a history of the USAF, celebrating the 50th anniversary. He also advised on the aerial sequences for the movie "Memphis Belle." 7:00 p.m. free.

**June 15, 2002**

### Air Fair (formerly Flight Day)

A fun-filled weekend with static aircraft and remote-control displays, air pressure demonstrations, Carpenter Science Theater productions and fun activities for the whole family.

**June 20, 2002**

### Guest Speakers Series

H. O. Malone will present a program on Lt. Gen. Frank Andrews. Andrews drew up a plan to centralize control of all Army Air Corps combat units under a single air officer at Langley Field. This marked a major milestone in the strategic development of American air power. 7:00 p.m. free.

For further information on events and schedules, call (804) 236-3622.

## Aviation Education Corner

### Air: Interdisciplinary Learning Activities

#### Science

Show that an empty, clear plastic soda bottle is not really empty but full of air. Place it under water and observe the air bubbles that come out of the opening.

Identify objects that are full of air.

Explain that a wind or breeze is really the movement of air.

Discuss what would happen to Earth if it were not surrounded by air.

Research other planets and moons in our solar system that have some type of air (atmosphere). Could humans live there? Does weather exist there?

Collect a variety of natural and synthetic objects. By tossing and dropping objects, test which ones stay in the air the longest. Discuss why certain objects "float" longer than others.

Observe clouds forming. Point out that clouds are formed by changes in temperature and the motion of air.

Watch weather information broadcasts at home or school. Record the wind information for your locality for a week, also record the type of weather (hot, cold, stormy, rainy, etc.). Discuss the relationship between wind and the rest of the weather for the week.

#### Mathematics

Measure how much a student can inflate a balloon with one breath of air. Measure the balloon's circumference after each breath.

Fill up various sizes of balloons with air and determine which balloon stays in the air longer when released. Discuss why.

Count the number of breaths it takes to inflate a balloon. Compare that number with other students in the class. Graph and discuss the results.

#### Fine Arts

Draw pictures of how things look when the wind (air) blows across them (examples: trees

bend, leaves float, lakes become wavy).

Make paper spirals and hang them in the classroom. The spirals will move with the air currents in the room.

Discuss musical instruments that use the force of air (wind instruments such as flute, saxophone, oboe, horn, and harmonica).

#### Technology Education

Design a kite, parachute, or parasail using household items.

Invent and build an air-driven device using household items.

Explore objects and materials you can use to move air, such as paper fans, straws, and pinwheels.

Determine what devices move air in your home and your school (examples may include air conditioners, heaters, fans in computers and other equipment).

#### Social Studies

Make a collage showing objects and machines from different cultures that harness the power of air.

Invite a person whose job deals with air, such as a meteorologist or a pilot, to speak to the class about his or her profession.

#### Language Arts

Read about and discuss air as a force in fantasy, such as in books like *The Three Little Pigs*, *The Wizard of Oz*, *Alberto and the Wind*, and *A Windy Day*. Compare air in fact and fantasy.

Keep a journal for a week or two that keeps record of the direction and force of the wind near your home and/or school. Also add temperature and air quality. Do different types of weather come from different directions?

Write a story about what happens on a very windy day.

Write a letter to local meteorologists asking questions about air and weather.

#### Health/Physical Education

Try different ways to feel the air:

Run with streamers.

Place a paper bag on your arm and move your arm back and forth.

Use a small parachute in the school gymnasium to observe how it shows down-falling objects.

#### Aviation & Space



America's Aviation Adventure .....  
Aviation's World Fair .....  
Int'l Aviation Art Contest

Space Day .....  
Virginia Department of Aviation ....

#### Web Sites

[www.americasaviationadventure.com](http://www.americasaviationadventure.com)  
[www.awf2003.com](http://www.awf2003.com)  
[www.fai.org/education/contests/artists/index.html](http://www.fai.org/education/contests/artists/index.html)  
[www.spaceday.com](http://www.spaceday.com)  
[www.doav.state.va.us](http://www.doav.state.va.us)

## 2002 NCASE Inspires and Energizes Educators

The 2002 National Congress on Aviation and Space Education (NCASE), sponsored by the Civil Air Patrol and held in Arlington, Virginia, April 3-6, 2002, drew approximately 1,300 educators who came away with new knowledge, materials, and enthusiasm for aviation education. This year, the Virginia Department of Aviation sponsored two Virginia teachers (\$500.00 scholarship each) to attend NCASE. Their comments on the experience are included below:

***Mary Jackson teaches 7th and 8th grade at Twin Valley Elementary/ Middle School in the Buchanan school division. She teaches life and physical sciences.***

My experience at the National Congress on Aviation and Space Education in Arlington in April was fantastic. When I received word that the Virginia Department of Aviation would help me to attend, I was delighted and a little apprehensive about attending a conference next to Washington, D.C. by myself. I'm so glad I did.

The first evening there was a reception given by the exhibitors. The exhibitors had plenty of free materials, always helpful to teachers, and were ready to explain their product or service to everyone. Later, Hangar Talk took place. This was terrific. It was an informal talk show-like gathering which featured Mr. A. Scott Crossfield, Captain Robert Gibson and Marta Bonn-Meyer. It was extremely interesting to listen to their humor-filled stories of their careers. Since I was a true novice to aerospace education, I had never heard of them. But the opportunity to hear these people who had such an impact on aerospace was great, and I'll be able to share their stories with my students as we discuss things dealing with aviation. The general assemblies that were held each morning were interesting. They provided me with a wide variety of information, some which I can share with my students and some which benefited me as an educator.

The concurrent sessions were terrific. On both days I gained many ideas to take back to my classroom. One session, Collaborative Experiments, was very enlightening and presented a good way to have my students experiment ensuring that they change only one variable at a time. I am anxious to take this back to my classroom and try it out. The other sessions provided me with many ideas and hands on activities to use. With the use of these activities I will be able to incorporate the ideas of force, motion, acceleration, and rate of reaction into my curriculum with projects that will grab my students attention and keep them involved.

One of the sessions dealt entirely with Bernoulli's principle and showed me some great demonstrations with easily found objects that I can easily use with my students. The presenter approached the teaching of this principle in a way that I felt will reach my students and give them a better understanding of this principle.

I attended two sessions that were presented by the same three teachers. They have successfully developed science units incorporating teach teaching and involving students working together from different middle school grades. It was great to see these enthusiastic teachers who have worked hard to come up with these units. I hope to try to incorporate many of their ideas in my classroom and also plan to talk to my science colleague at school to see if we could incorporate their team teaching ideas also.

I had a great time at NCASE and am excited about returning to my classroom and trying out these ideas. I have also received much material that I am anxiously awaiting to peruse and many web sites that I am going to visit. I am looking forward to teaching my 8th grade science next year incorporating the activities I have learned. I'm sure my students (and myself) will enjoy learning science with the ideas and activities, and hopefully my students will learn more. As a hands on minded educator, this was a great experience. I greatly appreciate receiving this opportunity to attend NCASE and look forward to attending again in the future.

***Nancy Hoover teaches grades 9, 11, and 12 at Lloyd C. Bird High School in the Chesterfield school division. She teaches engineering, physics, general physics, and aerospace.***

I was thrilled for the opportunity to attend the 35th annual National Congress on Aviation and Space Education. Since I am currently working to develop a course curriculum for an aerospace class to be offered next year, I know this conference was just what I was looking for. My main objective for attending the conference was to find curriculum material for this upcoming class. My expectations were not only met but exceeded! I have come away from the conference with more information and ideas than I could possibly use in the course of a year's instruction. However, perhaps more valuable than a piece of paper with ideas for lesson plans on it, is the network of professionals in the aviation/aerospace community I have found. I've always known the aviation/aerospace community to be passionate about education but now I've experienced that first hand. From ideas to e-mail addresses for future contact, I feel like I can go to my students with the assurance that anything we can't figure out, we have a wealth of people who would be willing to help.

From the guest speakers in the general sessions to the presenters in the concurrent sessions, I was inspired to find new ways to incorporate aviation and aerospace in my day to day teaching. I may even try my own hand at flying now that I've heard the stories of pilots and astronauts. One thing I do know --- I have a renewed appreciation and enthusiasm for aviation and aerospace education. This will certainly help when my new aerospace course gets off the ground in the fall. I fully anticipate that one day, one of my students will be a featured speaker during a general session at a future National Congress on Aviation and Space Education. When that happens, I hope to be right there as a congress participant, getting renewed and inspired all over again. I thank you for the opportunity to experience the 2002 National Congress on Aviation and Space Education.

## SCIENCE MUSEUM OF VIRGINIA CALENDAR

### EXHIBITIONS

Psychology: It's More Than You Think - thru June 30

### IMAX FILMS

Beauty and the Beast - thru May 27

Lost Worlds: Life in the Balance - Apr. 15 - Sept. 20

Thrill Ride: The Science of Fun - May 28-Sept. 27

Titanica - Opens Sept. 28, 2002

### MULTIMEDIA SHOWS

How Did I Get Here - Feb. 2 - June 14

### CARPENTER SCIENCE THEATER CO.:

The "Wright" Way to Fly - April 6-May 30

**LIVESKY:** Informal "live" planetarium presentation of the month's celestial events. Third Friday of every month (except Oct.)

**SKYWATCH:** Third Friday of every month (weather permitting) on the front lawn.

24-Hour Information: (804) 367-0000

Box Office: (804) 367-1080

24-Hour Skywatch Information: (804) 367-8277

24-Hour TDD Information: (804) 367-9760

General Information - TDD: (804) 367-6552

Group Scheduling: (804) 367-6552

Home Page: <http://www.smv.org>

## VIRGINIA AIR AND SPACE CENTER CALENDAR

### TRAVELING EXHIBITS:

MarsQuest - Thru May 5, 2002

Music Studio - Opening May 24, 2002

### IMAX FILMS:

Thrill Ride: The Science of Fun - thru May 23

Adventures in Wild California - thru May 23

Space Station: Opening April 19, 2002

### SIGMA SERIES LECTURES:

**Take this Gene and Call Me in the Morning: The Human Genome Project and Promise of Gene Therapy**

Francis L. Macrina - May 7, 2002, 7:30 p.m.

**Shock Waves on Aircraft Structure and Aviation Security**

Gary Settles - June 4, 2002, 7:30 p.m.

Call (804) 727-0900 for showtimes

Visit the Center's Home Page:

<http://www.vasc.org>

Visit the Teacher Resource Center Home Page:

<http://seastar.vasc.mus.va.us>

## Calendar of Events

May 4-5, 2002

**EAA Chapter 186 Spring Fly-In** at the Manassas Airport will be held from 8:00 a.m. - 4:00 p.m. daily. Displays, demos, FAA Seminars, aircraft judging, pancake breakfast daily. For details visit: [www.eaa186.org](http://www.eaa186.org).

May 13-15, 2002

**Single Pilot IFR**, a series of AOPA pilot seminars, will be held at locations across the state.

June 2, 2002

**New London Airport Fly-In/Airport Appreciation Day** will be held from 8:00 a.m. - 5:00 p.m. Old fashioned country fly-in. Breakfast at 8:00 a.m., lunch, air rides, etc.

June 24-30, 2002

**B-17 Tours and Flights** will be available at Suffolk Municipal Airport, Richmond International Airport, and Manassas Regional Airport. For exact dates and times visit: [www.b17.org](http://www.b17.org).

**For more events check out:**

<http://www.doav.state.va.us/calendar.htm>.

## Aviation Education Supporters:

VASEF projects are funded by our membership fees and by donations from our member organizations. We would appreciate your support through membership in our organization.

\_\_\_\_\_ Regular Membership \$25.00 annually (July - Dec. \$12.50)

\_\_\_\_\_ Non-Profit Organization \$25.00 annually (July - Dec. \$12.50)

\_\_\_\_\_ Corporate Membership \$100.00 annually (July - Dec. \$50.00)

\_\_\_\_\_ New Member \_\_\_\_\_ Renewal

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

Occupation: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_

Please Return to: Tom Tyndall, VASEF Treasurer  
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**Inside:**

**2002 International  
Contest Winners**

**Aviation  
World's  
Fair 2003**



# Please Post for Teachers